What is claimed is:

1. A method for reproducing a multi-path data stream recorded on a recording medium, comprising the steps of:

(a) reproducing the multi-path data stream;

5   (b) responsive to a request for a path change, checking if the size of buffered data stream of a current path being reproduced exceeds a preset reference; and

(c) delaying jumping operation to a data stream of a target path specified by the request based on the result of said

10 checking step (b).

2. The method set forth in claim 1, wherein said preset reference is a value to prevent buffer underrun during jumping to other path.

3. The method set forth in claim 1, wherein said step (c)

15 delays jumping to the target path and, instead, keeps reproducing and buffering the data stream of the current path if the size of the buffered data stream is not larger than the preset reference.

4. The method set forth in claim 1, wherein said step (c)

20 conducts jumping operation to the target path while making presentation of the buffered data stream, if the size of the buffered data stream is larger than the preset reference.

5. The method set forth in claim 4, wherein said step (c) comprises the steps of:

25   starting to check whether a stream interval of the current path pointed by an entry point is entirely buffered, if the size of the buffered data stream is larger than the preset reference; and

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conducting jumping operation to the target path while making presentation of the buffered data stream after the stream interval is all buffered.

6. A method for reproducing a multi-path data stream
5 recorded on a recording medium, comprising the steps of:

(a) reproducing the multi-path data stream;

(b) responsive to a request for a path change, checking if an entry point pointing to a data stream interval of a current path being reproduced falls within a range of no jumping
10 blocks; and

(c) delaying jumping operation to a data stream of a target path specified by the request based on the result of said checking step (b).

7. The method set forth in claim 6, wherein said step (c)
15 further comprises the steps of:

(c1) checking if the size of buffered data stream of the current path is larger than a preset reference, if the entry point is beyond the range of no jumping blocks; and

(c2) conducting jumping operation to the target path
20 while making presentation of the buffered data stream, if the size of the buffered data stream is larger than the preset reference.

8. The method set forth in claim 7, wherein said step (c2) comprises the steps of:
25   starting to check whether a stream interval of the current path pointed by an entry point is entirely buffered, if the size of the buffered data stream is larger than the preset reference; and

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conducting jumping operation to the target path while making presentation of the buffered data stream after the stream interval is all buffered.

9. The method set forth in claim 6, wherein the range of
5 no jumping blocks is specified by the number of entry points that is counted from a previous path-changed point on the data stream.

10. The method set forth in claim 9, wherein the number of entry points corresponding to the range of no jumping blocks
10 is constant wherever path is changed on the multi-path data stream.

11. The method set forth in claim 9, wherein the number of entry points corresponding to the range of no jumping blocks can vary depending on path-changed points on the multi-path data
15 stream.

12. The method set forth in claim 9, wherein the range of no jumping blocks is set a minimum length that is unlikely to cause a buffer underrun during jumping to other path.

13. The method set forth in claim 6, wherein information
20 about the range of no jumping blocks is recorded in a clip information file in which entry points are recorded or in a playlist file, or in both files.

14. An apparatus for reproducing a multi-path data stream recorded on a recording medium, comprising:
25   a driver for driving an optical reproducing device to reproduce a data stream of a selected path among the multi-path data stream recorded on the recording medium;
        storing means for buffering the reproduced data stream of

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the selected path; and

a controller for checking, responsive to a request for a path change, if the size of the data stream of the selected path buffered in the storing means is larger than a preset reference
5 and for delaying jumping operation to a data stream of a target path specified by the path change request based on the checking result.

15. The apparatus set forth in claim 14, wherein said controller further controls the driver to conduct the jumping
10 operation to the target path while making presentation of the buffered data stream, if the size of the buffered data stream is larger than the preset reference.

16. An apparatus for reproducing a multi-path data stream recorded on a recording medium, comprising:
15 a driver for driving an optical reproducing device to reproduce a data stream of a selected path among the multi-path data stream recorded on the recording medium;

storing means for buffering the reproduced data stream of the selected path; and
20 a controller for checking, responsive to a request for a path change, if an entry point pointing to a data stream interval of the selected path being buffered in the storing means falls within a range of no jumping blocks, and for delaying jumping operation to a data stream of a target path
25 specified by the path change request based on the checking result.

17. The apparatus set forth in claim 16, wherein said controller further checks if the size of buffered data stream of

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the selected path is larger than a preset reference, if the entry point is beyond the range of no jumping blocks, and controls the driver to jump to the target path while making presentation of the buffered data stream, if the size of the buffered data stream is larger than the preset reference.